

REMARKS

In response to the Office Action mailed March 13, 2009, Applicant respectfully requests reconsideration. Claims 1-13 and 15-27 are pending for examination in this application. Claim 14 and withdrawn claims 28-65 have been canceled. By this amendment, claim 1 has been amended. No new matter has been added.

I. Telephone Conference with Examiner

Applicant's representative, Melissa A. Beede (Reg. No. 54,986) contacted the Examiner regarding an apparent discrepancy in the examined claims. In particular, Applicant's representative explained to the Examiner that Article 34 Amendments from the PCT stage of the application had been filed with the national stage application and are in the file wrapper viewable on PAIR. Applicant's representative also explained that MPEP §1893.01(a)(3) indicates that examination should have been based on the claims as amended in the Article 34 Amendments, but appears to have been based on the claims as originally filed in the PCT application. The Examiner called Applicant's representative on June 5, 2009, and explained that since the USPTO did not separately identify the amended claims as the pending claims on PAIR, the response to the Office Action dated March 13, 2009 should be based on the claims as originally filed in the PCT application, and not as amended during Chapter II. Accordingly, the claims herein are based on the claims as originally filed in the PCT application.

II. Objections to the Specification

The Office Action objected to the disclosure "because of the following informalities: the Brief Description of the Drawings fails to provide a description for Figures 6A, 10A, 11A-11D, 12A, 12B, 15A, 15B, 16A-16C, 19A, 34A, 34B and 41A-41E."

The "Brief Description of the Drawings" has been amended to address the Examiner's concern. Accordingly, withdrawal of this objection is respectfully requested.

III. Rejections of Independent Claim 1

The Examiner rejected independent claim 1 as allegedly being anticipated by each of U.S. Patent No. 5,311,866 ("Kagan"), U.S. Patent No. 5,891,136 ("McGee"), and U.S. Patent Publication No. 2002/0107511 ("Collins"). Claim 1 has been amended, and the rejections of claim 1 are addressed below.

a. Overview of the Invention

One aspect of the invention relates to a retractable tip as described e.g., in connection with Figures 34A-B of Applicant's specification.

As described in paragraphs 0154 and 0155 of the published application, the catheter 300 of Figures 34A-B addresses one drawback that may be experienced when using a catheter such as shown in FIG. 1. When a catheter having a long distal end is used in an electrophysiology procedure involving the heart, the distal end may hinder the ability to maneuver the catheter within the heart. For example, certain pulmonary veins of the heart may branch to form smaller veins close to the heart. If the portion of the catheter that is distal to the braided conductive member is sufficiently long, the physician may have difficulty introducing the distal end of the catheter into a desired vessel and therefore may have difficulty positioning the braided conductive member. As shown in Figures 34A-B, a distal tip portion 302 of catheter 300 may be retracted proximally in the direction of the shaft 304 using a mandrel 306 that is slidably disposed within the shaft 304, which results in the radial expansion of braided conductive member 28. Thus, the overall length of catheter 300 may be shortened when the braided conductive member 28 is deployed, which may aid the insertion of the distal tip portion of the catheter into a vessel during an electrophysiology procedure.

As described in paragraph 0061, sliding the mandrel 306 within the shaft 304 of catheter 300 changes the configuration of the braided conductive member 28. In particular, when the mandrel 306 is slid distally within the shaft 304, the braided conductive member 28 assumes an undeployed configuration, which may be generally cylindrical. When the mandrel 306 is slid proximally within

the shaft 304, the braided conductive member 28 assumes a deployed configuration, which may have a disk-like shape. Thus, deploying the braided conductive member 28 expands the braided conductive member 28 radially.

The above summary of one aspect of the invention is provided merely for the Examiner's convenience, and is not intended to characterize any of the claims. Therefore, the Examiner is requested to not rely upon the summary characterization above, but to closely examine independent claim 1 to ensure that it distinguishes over the references of record for the reasons discussed below.

b. Kagan

Kagan discloses a mapping catheter comprising a wire stylet 32 that is attached to a distal braid ring 23, as shown in FIG. 4 (col. 3, lines 52-53). Traction applied to the distal braid ring 23 causes the braid to move from a generally cylindrical form seen in FIG. 3 to a generally spherical form shown in FIGs. 1 and 4 (col. 3, lines 56-59).

Claim 1 recites that "proximal retraction of the mandrel expands the braided conductive member from an undeployed position in which the braided conductive member assumes a generally cylindrical configuration to a deployed position in which the braided conductive member assumes a disk-like configuration." Kagan does not disclose or suggest that actuation of a mandrel expands a braided conductive member from an undeployed position in which the braided conductive member assumes a generally cylindrical configuration to a deployed position *in which the braided conductive member assumes a disk-like configuration*.

In view of the foregoing, claim 1 patentably distinguishes over Kagan. Accordingly, withdrawal of the rejection of claim 1 in view of Kagan is respectfully requested.

c. McGee

McGee discloses that an expandable-collapsible body 22 may be supported on a closed, three dimensional structure 44 formed by a resilient mesh 50 (Col. 10, lines 17-20). FIG. 6 illustrates the spherical, expanded geometry of the expandable-collapsible body 22 and FIG. 7 illustrates the collapsed geometry of the expandable-collapsible body 22 (Figures 6 and 7). According to one embodiment, the expandable-collapsible body 22, which is internally supported

by a mesh structure 50, may be expanded or collapsed using a stilette 76 (Col. 12, lines 50-54). Pushing forward upon the stilette 76 extends the mesh structure 50 to collapse the expandable-collapsible body 22 (Col. 12, lines 54-56). Pulling rearward upon the stilette 76 has the opposite effect, allowing the spline structure 46 or mesh structure 50 to assume its expanded geometry (Col. 12, lines 57-60).

Claim 1 recites that “proximal retraction of the mandrel expands the braided conductive member from an undeployed position in which the braided conductive member assumes a generally cylindrical configuration to a deployed position in which the braided conductive member assumes a disk-like configuration.” McGee does not disclose or suggest that actuation of a mandrel expands a braided conductive member from an undeployed position in which the braided conductive member assumes a generally cylindrical configuration to a deployed position *in which the braided conductive member assumes a disk-like configuration*.

In view of the foregoing, claim 1 patentably distinguishes over McGee. Accordingly, withdrawal of the rejection of claim 1 in view of McGee is respectfully requested.

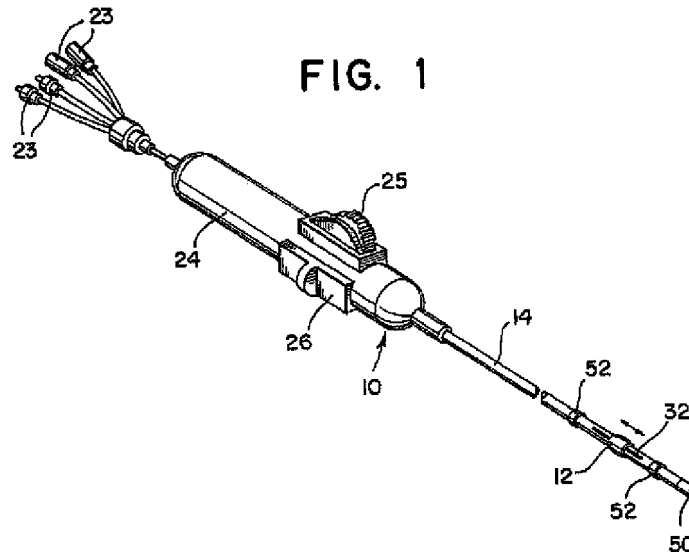
d. Collins

Claim 1 recites “a tip portion located at a most distal portion of the catheter,” “a braided conductive member coupled to... the tip portion” and “a mandrel fixedly attached to the tip portion.” Claim 1 further recites that “proximal retraction of the mandrel causes proximal retraction of the tip portion.”

The cited passage of Collins discloses that the inner member/shaft 22 may be moved proximally with respect to second sheath 26 to expand the braided conductive member 28. In this case, however, the braided conductive member 28 is not coupled to a tip portion, as recited in claim 1. Rather, the braided conductive member 28 is coupled to sheath 24, which is neither “located at a most distal portion of the catheter” nor fixedly attached to the mandrel, as recited in claim 1.

The cited passage of Collins also discloses that, alternatively, the first sheath 24 may move over the inner member/shaft 22 in response to a mandrel inside inner member/shaft 22 and attached to the first sheath 24 in the manner described in U.S. Patent No. 6,178,354. U.S. Patent No.

6,178,354 explains that “[a] portion of the mandrel 30 extends through the slot 32 for engagement with the inside surface of the slidable electrode 12...” The slot 32 is shown in Fig. 1, below.



In this case as well, the braided conductive member 28 is not coupled to a tip portion, as recited in claim 1. Rather, the braided conductive member 28 is coupled to sheath 24, which is not “located at the most distal portion of the catheter” as recited in claim 1. Thus, in Collins, proximal retraction of the mandrel does not cause proximal retraction of the tip portion, as recited in claim 1.

In view of the foregoing, claim 1 patentably distinguishes over Collins. Accordingly, withdrawal of the rejection of claim 1 in view of Collins is respectfully requested.

IV. Dependent Claims

Since each of dependent claims 2-13 and 15-27 depends from independent claim 1, which is believed to be in condition for allowance as discussed above, Applicant believes that it is unnecessary at this time to argue the allowability of each of the dependent claims individually. However, Applicant does not necessarily concur that the basis for the rejections of any of the remaining dependent claims is proper. Therefore, Applicant reserves the right to specifically address the patentability of the dependent claims in the future, if deemed necessary.

CONCLUSION

It is respectfully believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment set forth in the Office Action does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Furthermore, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify any concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's representative at the telephone number indicated below to discuss any outstanding issues relating to the allowability of the application.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 23/2825 under Docket No. B1075.70043US01 from which the undersigned is authorized to draw.

Dated: June 12, 2009

Respectfully submitted,

By:



Melissa A. Beede, Reg. No. 54,986
Wolf, Greenfield & Sacks, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
Telephone: (617) 646-8000